

ABSTRACT OF THE INVENTION

The invention is embodied in a receiver that receives a modulated signal having multiple levels. The receiver has an equalizer with plural equalization settings for compensating for distortion in the received signal. The receiver further includes an adapter for selecting one of the plural equalization settings that provides an optimum compensation for the distortion. The adapter employs a trial and error procedure for evaluating the equalizer performance for each one of the equalizer settings by first observing the multiple levels of the incoming signal and defining therefrom valid regions encompassing each of the multiple levels and invalid regions not encompassing the multiple levels. Next, the adapter computes a first metric consisting of a count of samples within each of the invalid regions. It also computes a second metric consisting of the differences that are less than a predetermined threshold between pairs of samples falling within the same valid region. Finally, the adapter combines the first and second metrics to produce a combined metric for said one equalizer setting. The adapter then compares all of the combined metrics to determine the best metric and chooses the equalizer setting corresponding to the best combined metric.

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